

Lexical and audiovisual bases of perceptual adaptation in speech

Citation for published version (APA):

Ullas, S. (2020). *Lexical and audiovisual bases of perceptual adaptation in speech*. [Doctoral Thesis, Maastricht University]. Ipskamp Printing BV. <https://doi.org/10.26481/dis.20200617su>

Document status and date:

Published: 01/01/2020

DOI:

[10.26481/dis.20200617su](https://doi.org/10.26481/dis.20200617su)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

Propositions accompanying the thesis:

Lexical and audiovisual bases of perceptual adaptation in speech

Shruti Ullas

June 17th, 2020

1. Listeners rely on perceptual adaptation to cope with variability in speech, by attending to non-acoustic, contextual information to guide comprehension.
2. Two primary sources of guidance for a listener are audiovisual/lip-reading cues and the listener's own knowledge of the lexicon.
3. Continuous exposure to pairings between contextual cues and speech sounds can lead to shifts in internal representations of phoneme categories.
4. Lexical and audiovisual cues share numerous similarities in how their resulting perceptual shifts can be measured, but differ as to how quickly the effects are induced.
5. Contextual cues are not necessarily additive in their influence on perception, and their relative contributions are determined by the timing in which the listener encounters each available cue.
6. Perceptual shifts resulting from audiovisual cues reactivate regions of the visual cortex, even in the absence of the visual cues that originally triggered the activity.
7. More is needed on individual differences in perceptual adaptation, or how the same cues might be utilized distinctively by each listener.
8. Educational strategies that incorporate the use of contextual cues can be valuable for people with hearing impairments, who cannot rely on the acoustic signal alone and require additional support.
9. Investigating how non-acoustic cues combine and interact to influence listening is crucial for understanding speech perception.
10. To speak a language is to take on a world, a culture. (Frantz Fanon)